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QuickGuide to Macro Speedlite MR-14EX and MT-24EX

This QuickGuide reviews how to use either of Canon's two Macro Speedlites: the MR-14EX and MT-24EX. The primary difference is between them is that the MR-14EX has two circular flash tubes permanently mounted opposite each other onto the Flash Ring, while the MT-24EX has two removable and adjustable flash heads that snap into miniature flash shoes.

Control Layout

1. **LCD ILLUMINATOR/C.Fn** – LCD illuminator/Custom Function button
2. **MODE** – Flash mode button. Toggles between E-TTL/TTL and M (manual) flash mode.
3. + : Increase button. Increases flash exposure compensation. Press SEL/SET first.
4. - : Decrease button. Applies "minus" flash exposure compensation. Press SEL/SET first.
5. **SEL/SET** – Select/Set button. For selecting and setting features and functions.
6. **LAMP** – Focusing lamp button
7. ▲ - Left arrow button. Increases power to left flash tube (A) relative to right (B).
8. ▼ - Right arrow button. Increases power to right flash tube (B) relative to left (A).
9. **RATIO** – Flash ratio button. Cycles ratio between OFF, A:B, and A:B C. When A is displayed in Manual flash mode, the flash output displayed (1/1 thru 1/64) is for flash tube A. When B is displayed in Manual flash mode, the flash output displayed is for flash tube B.

10. **CH** - Channel button. Selects flash channel (1 – 4) when unit is in wireless slave mode.
11. **PILOT** – Pilot lamp and test fire button
12. **Flash Exposure Confirmation lamp**
13. **Power switch** – Turns power on and off. SE position enables "Save Energy" mode, which automatically powers down the flash after 90 seconds of inactivity. To cancel SE mode, press the PILOT button.

Attaching/Detaching the Flash Ring

The Flash Ring attaches directly to the following lenses:

- EF 50mm f/2.5 Compact Macro
- EF 100mm f/2.8 Macro USM
- EF 100mm f/2.8 Macro (now discontinued)
- MP-E 65mm f/2.8 1-5x

The EF 100mm f/2.8L IS Macro requires Macro Lite Adapter 67C. The EF 180mm f/3.5L Macro requires Macro Lite Adapter 72C (each sold separately). Macro Lite adapters are available in sizes 52mm, 58mm, 67mm and 72mm.

To attach the Flash Ring, press in on the release button(s) while placing the ring onto the lens. When the ring is in place, let go of the button(s). Make sure the ring is firmly attached. To detach the ring, reverse the procedure.

Selecting camera exposure mode

Set your camera to whatever exposure mode you prefer: P, Av, Tv, or M. Choose Manual mode when you want small apertures for maximum depth-of-field combined with a fast shutter speed to help minimize blur and separate the subject from the background. (Light falls off more rapidly at short distances, therefore the closer the flash is to the subject, the darker the background exposure will be unless you either increase the shutter speed/ambient light exposure or light the background separately.)

E-TTL OPERATION

Basic E-TTL Auto operation

When the flash unit is set to E-TTL it will automatically emit a brief pre-flash prior to the actual flash exposure. Based on the pre-flash measurement, it will then adjust the flash duration to provide proper exposure based on a combination of flash-to-subject distance, subject reflectivity, aperture, shutter speed, and ISO. This applies

to all camera exposure modes, including Manual. Press the MODE button to toggle between E-TTL and M. The flash is in E-TTL mode when E-TTL appears in the upper left corner of the LCD.

To operate the flash in E-TTL mode:

1. Turn the power switch to **ON** or **SE**.
2. Set the camera to the ISO and exposure mode of your choice. If the camera is set to **Auto ISO**, the ISO setting will vary as follows:
 - Tv or Av or P or CA or Full Auto**: The camera will automatically set the ISO speed at 400 (or 800 on Rebel T3).
 - Av Fill-in Flash**: If the pre-flash detects over-exposure at ISO 400 (or 800), the camera will reduce the ISO to as low as 100.
 - P or CA or Full Auto & bounce flash**: If the pre-flash detects under-exposure at ISO 400 (or 800), the camera will increase the ISO speed to as high as 1600.
3. Focus and release the shutter.
4. If there was enough light for a correct exposure the green Flash Exposure Confirmation Lamp will illuminate for 3 seconds. If not, the lamp will **not** illuminate.

E-TTL Flash Ratio Control

Because the MR-14EX and MT-24EX have two flash tubes (A and B) you have the option of firing A and B at equal output (1:1), firing A and B at an unequal ratio (1:2, 1:4, 2:1, etc.), or firing either A or B independently.

Equal output

1. Press the RATIO button once. The ratio display will appear.
2. Confirm that the ratio indicator is in the center, below 1:1. If not, press either the ▲ or ▼ arrow as needed to move the bar back to the center.

A:B ratio

1. Press the RATIO button once. The ratio display will appear.
2. Press the ▲ arrow toward flash A (left) to increase its power. Press the ▼ arrow to increase power of flash B (right). Each press will increase the ratio by a half-stop. An A:B ratio of 2:1 indicates that flash A will output twice as much light (one stop) as B. A ratio of 4:1 indicates four times as much (two stops). A ratio of 8:1 indicates eight times as much (3 stops).

E-TTL Flash Ratio Control (continued)

The reverse also applies. For example, an A:B ratio of 1:4 indicates that flash B will output four times as much light as A.

Turning off A or B (firing one tube only)

1. Press the RATIO button once. The ratio display will appear.
2. Press either the **◀** or **▶** button as needed to move the ratio indicator all the way to the left (A) or right (B). The ratio scale will disappear, leaving only the flash tube firing icon for the side you have selected.

Wireless E-TTL Flash

The MR-14EX and MT-24EX are fully compatible with the Canon Speedlite wireless flash system. Because the MR-14EX/MT-24EX already comprise units A and B of a wireless flash group, you would normally set any additional unit(s) as a slave assigned to group C. Be sure to set A:B C ratio. The Macro Lite's A and B tubes will light the main subject. You can use Slave C either to light the background only or create accent lighting, according to your preference. If you activated **FLASH C.Fn 5-1**, you can instead assign any additional slave units to supplement slave groups A and B. *Slaves assigned to A and B will not otherwise fire unless C.Fn 5-1 is active.*

MANUAL OPERATION

Manual Flash Mode Settings

In the manual flash mode, you can adjust the flash output from 1/1 (full) to 1/64 power in whole-stop increments. When shooting in manual mode you must either use a flash exposure meter or pre-test the flash exposure. The camera will not automatically adjust the exposure. The flash tubes can be fired in one of three configurations:

1. Fire both flash tubes at the same output
2. Fire flash tube A at a different output from flash tube B
3. Fire only one of the flash tubes (A or B)

To fire both tubes at equal output:

1. Set the camera's shooting mode to Av or M.
2. Press the <MODE> button and change the mode from E-TTL to M.
3. Press the <SEL/SET> button. The flash output display will blink.

4. Press the <+> or <-> button to set the desired flash output. Each time you press the button, the flash output will increase or decrease by one stop.
5. Press the <SEL/SET> button again to lock in your choice.

To fire both tubes at a different output:

1. Follow steps 1 – 2 above
2. Press the RATIO button and select A:B
3. Press the **◀** or **▶** button to select flash tube A or B; selected group is underlined
4. Press the <+> or <-> button to set the desired flash output.
5. Press the <SEL/SET> button again to lock in your choice, and move to next flash group

Wireless Manual Flash

To set up a wireless flash system (compatible with EOS digital SLRs):

1. Press the Macro Lite's <MODE> button and select "M (Manual)".
2. Press the <RATIO> button and select **RATIO A:B C**. Each time you press the button, the selection will change in the following order: **OFF** → **RATIO A : B** → **RATIO A : B C**
3. Press the <C H.> button to select the channel you wish to use. Select any channel from 1 to 4. All flash units under your control must be set to the same channel.

Setting flash output for A and B and Slave C

With [RATIO A:B C] displayed on the master unit, set the flash output for flash tubes A and B, then set the flash output for slave C. For the setting procedure, refer to "Manual Flash Mode Settings" above.

MODE-INDEPENDENT FEATURES

Modeling flash

Press the depth-of-field preview button on your camera to trigger modeling flash. (Note: Rebel T3 requires C.Fn 8-1 be set on-camera.)

Focusing lamps

Press the LAMP button to turn on the focusing lamps. They will automatically shut off in approximately 20 seconds. To turn the lamps off manually, press the LAMP button again.

Flash Exposure Compensation (FEC)

You can set FEC up to ±3 stops in 1/3-stop increments (or 1/2-stop increments with some cameras). To set FEC:

1. Press the SEL/SET button repeatedly until the [+/-] icon appears on the LCD. The icon and FEC amount will blink.
2. Press the + or – button to set the FEC amount.
3. Press the SEL/SET button to lock in your choice.

Flash Exposure Bracketing (FEB)

Three flash shots can be bracketed up to ±3 stops in 1/3-stop increments (or 1/2-stop increments with some cameras) in the following order: Correct exposure, decreased exposure, and increased exposure. FEB is canceled automatically after all three bracketed flash exposures have been completed. To set FEB:

1. Press the SEL/SET button repeatedly until the [BRACKETING] icon appears on the LCD. The icon and FEC amount will blink.
2. Press the + or – button to set the FEB amount.
3. Press the SEL/SET button to lock in your choice.

Flash Sync Options

By default, the flash fires in synchronization with the first shutter curtain when the shutter is fully open. With **Second-curtain Sync**, the flash fires immediately before the second shutter curtain closes at the end of the exposure.

High-Speed Sync (FP Flash) allows the Macro Lite to sync at all shutter speeds. Although this reduces power output, this can be a benefit when you are working at close distances or if you are using the flash for flash-fill lighting. To set either option:

1. Press the <+> and <-> buttons simultaneously to select the flash sync option of your choice. The icon for the corresponding mode will appear on the LCD screen as well as in your camera's viewfinder. Each simultaneous press of these two buttons will change the sync setting.
2. To switch back to standard 1st-curtain sync, press the <+> and <-> buttons simultaneously until neither the 2nd-curtain sync nor high-speed sync icons are visible on the LCD.

